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TITLE: LASER BEAM **WELDING** HEAD

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INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To provide a laser beam $\underline{\textbf{welding}}$ head responding to a prescribed

important matter by eliminating a defect of a welding nozzle.

CONSTITUTION: This $\underline{\textbf{laser}}$ beam $\underline{\textbf{welding}}$ head is provided witch a nozzle 10

having an extremely small outlet diameter (d), (d) is 2.5 mm in the case of a

CO2 $\underline{\textbf{laser}}$ beam 6 having the $\underline{\textbf{focal distance of 150 mm,}}$ the nozzle 10 is provided

with a conical inner surface 11, the half angle in the apex is 15 degrees in

the case of the $\underline{\mathtt{laser}}$ beam 6, the surface state being Ra 0.8 is also excellent,

and an outlet zone is provided with a shelf part having the radius(r) nearly

equal to two times the nozzle outlet diameter(d).

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